SPECTROSCOPIA MOLECULAR

Un bulletin mensual de novas e informationes de interesse e valor al spectroscopistas molecular

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SYMPOSIO ARGONNE PLANATE PRO 1956

UN SYMPOSIO SPECTROSCOPIC es planate al statounitese Laboratorio National Argonne, proxime a Chicago, in januario o februario 1956. Sessiones essera tenite super spectros del elementos pesante, structura hyperfin e cambiamentos isotope, absorption a basse temperaturas, essayo isotope, equipamentos pro le maneamento de specimens parve o radioactive, nove disveloppamentos in proceduras e instrumentos, etc. Analyse spectrochimic routinari non essera includite proque illo es adequatemente coperite in altere conferentias. Spectroscopistas qui desira venir al symposio debe submitter lor nomines in avantia, como requirite per le regulas. Titulos de discursos contribuite es desirate usque al 1 de october, e summarios 1 mense ante le assemblea. (Frank S. Tomkins e Mark Fred, Division de Chimia, Laboratorio National Argonne, Cassa Postal 299, Lemont, Illinois, Statos Unite de America.)

SINGH VA AL UNIVERSITATE JOHNS HOPKINS

DR. NAND LAL SINGH del departimento de spectroscopia del Universitate Banaras Hindu in India se junge in septembre con le departimento de physica del Universitate Johns Hopkins a Baltimore in Maryland, S. U. A. como Scientista de Recerca del Governamento de India. Dr. Singh va collaborar con Prof. G. H. Dieke in le studio del structura rotational de bandas con spectrographos vacue.

Durante le anno passate, Dr. Singh laborava como Associato de Recerca con Dr. J. W. Straley al Universitate North Carolina a Chapel Hill in North Carolina, S. U. A., super mesurationes del intensitates de methanos halogenate in le vapor e in solution.

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BRYCE CRAWFORD DEVENI LE CHEF

DR. BRYCE L. CRAWFORD, JR. es le nove chef del schola de chimia al Universitate Minnesota a Minneapolis, S. U. A.

(continuate al pagina 71)

LE DEBILISSIME CREATURA que vive, per concentrar su potentias sur un singule objecto, pote compler alique; le fortissime, per dispensar le sues supra multes, pote faller a compler alique. Le gutta, per cader continuemente, face un apertura a transverso le durissime rocca. Le hastive torrente curre supra illo con un tumulto tremende e lassa nulle tracia.

-- CARLYLE.

CONVENTION BIENNAL 1955 DEL GRUPPO DE SPECTROSCOPIA MOLECULAR EUROPEE

PLUS QUE 200 SPECTROSCOPISTAS molecular convergeva al Collegios St. Johns e Exeter del Universitate Oxford in Anglaterra pro le assemblea biennal 1955 del gruppo de spectroscopia molecular europee ab le 7 al 11 de julio. Con scientistas veniente non solmente ex paises europee tal como Anglaterra, Wales, Scotia, Hollanda, Belgica, Espania, Danmark, Switza, Francia, Germania, Italia, Finlandia, e Yugoslavia sed etiam ab tanto distante paises como Canada, Brasil, Statos Unite de America, e Japon le natura international del convention esseva assecurate.

Le committee de arrangiamentos, del qual H. W. Thompson del Collegio St. Johns esseva le chef, habeva organisate un programma le plus interessante. Illo esseva continite intra 16 sessiones de 2 hrs, tenite in le nove Laboratorio de Chimia Physic. Chef Thompson introduceva como un innovation un apparato con un lumine verde (parla), un lumine ambral (premonition), e un lumine rubie (tempore a cessar a parlar). Isto esseva un medio plen de color e "spectroscopic" pro assecurar un bon approximation al horario prearrangiate.

Plus Que 80 Discursos Presentate

Multe attingimentos e multe labor que aperi nove vias esseva reportate in le plus que 80 discursos presentate al convention. Progresso importante esseva describite in re le uso del intensitates de bandas infrarubie, non solo pro spectros de liquidos e solidos sed etiam pro le lineas individual in le bandas vibrational rotational in gases. Un altere gruppo de discursos de grande interesse tractava del progresso in spectros a alte resolution.

Stammreich Obtene Spectros Raman Per Excitation Con Un Linea Infrarubie

De plus, iste correspondente trovava le sequente discursos de interesse particular:

Stammreich (Universitate São Paulo) reportava spectros Raman de substantias colorate, fluorescente, e photochimicamente instabile per uso de un linea de excitation infrarubie;

Nikitine (Instituto Physic, Strasburg) describeva spectros exitonic de crystallos observate in le ultraviolette;

Price et al. (Kings College, London) reportava potentiales de ionisation obtenite per mesuration directe del currente ionic producite per illumination monochromatic, le quales es in bon concordantia con potentiales deducite ex le spectros de absorption ultraviolette;

Welch et al. (Laboratorio McLennan, Toronto) describeva un tubo Raman de 2m de longitude le qual es usate pro gases in un spectrometro que da un resolution de 1 cm^{-1} pro spectros Raman vibrational rotational.

Nove Typo De Spectro Reportate

Ketelaar e Hooge (Laboratorio de Chimia Physic, Amsterdam) annunciava lor observation de un nove typo de spectros que resulta ex transitiones simultanee in mixturas de liquidos. Per exemplo, le spectro de perchloromercaptano (CCl_3SCl) in CS_2 monstra bandas le quales non es presente in le spectro del un o del altere separatemente. Ille interpreta iste bandas como le resultato de transitiones simultanee in le 2 compositos. Assi, un banda a 1951 cm^{-1} resulta ab 1500 cm^{-1} (ν CS_2) + 451 cm^{-1} (ν CCl_3SCl).

Spectros De Radicales Organic Obtenite

Pimental (Universitate California, Berkeley) dava un reporto de progresso in re le spectros infrarubie de radicales organic condensate in un matrice inerte a basse temperaturas;

Mecke (Instituto de Chimia Physic, Freiburg) demonstrava belle spectros de $X-(CH_2)_n-Y$ pro varie substituentes X e Y, e pro n = 1 - 20; e

Orr (Chester Beatty Research Institute, London) monstrava que le accres-

(continuate al pagina 70)

SPECTROS MOLECULAR. III.
TRACTAMENTOS DEL COORDINATAS NORMAL DE MOLECULAS POLYATOMIC
B. APPLICATIONES SPECIFIC
(Parcella 8)

Forrest F. Cleveland, Arnold G. Meister, e Fred L. Voelz

(continuate ab Spec. Mol. 4, 60 (1955).)

--ooo--

4C. Le Matrices G

IE ELEMENTOS DEL matrice G pro le vibrationes nondegenerate de typo a_1 pote esser obtenite ex Eq. 2C1. Pro le vibrationes duplemente degenerate de typo e, le equation correspondente pro le elementos del matrice G es[5]

$$G_{jl} = \tfrac{1}{2} \sum_p \mu_p g_p \, (\underline{S}_{ja}^{(t)} \cdot \underline{S}_{la}^{(t)} + \underline{S}_{jb}^{(t)} \cdot \underline{S}_{lb}^{(t)}), \quad (1)$$

ubi $\underline{S}_{ja}^{(t)}$ e $\underline{S}_{jb}^{(t)}$ es pro le atomo t le vectores obtenite ab le U's que appare in S_{ja}, S_{jb}; le altere symbolos ha le mesme signification como in Eq. 2C1.

Le vectores $\underline{s}_{kt}$ es obtenite ex Eqs. 2C3 e 2C4, e le vectores unitari, distantias internucleari, e angulos interligaminic date in Fig. 4C1. Es assumite

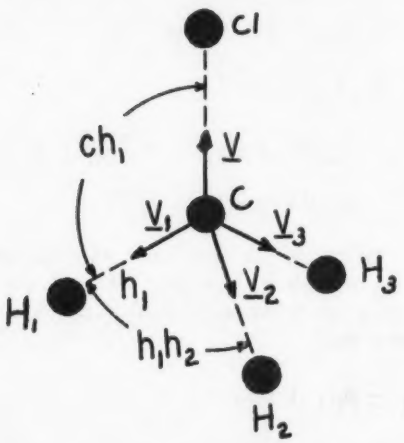


Fig. 4C1. Vectores unitari pro le molecula CH_3Cl.

que omne le angulos es 109° 28'. Solmente le vectores del atomo typic in cata gruppo de atomos equivalente es requirite.

Pro H_1:

$$\underline{s}h_1H_1 = \underline{v}_1,$$

$$\underline{s}h_1h_2H_1 = -2^{\frac{1}{2}}h^{-1}(\underline{v}_1/3 + \underline{v}_2)3/4,$$

$$\underline{s}h_3h_1H_1 = -2^{\frac{1}{2}}h^{-1}(\underline{v}_1/3 + \underline{v}_3)3/4,$$

$$\underline{s}ch_1H_1 = -2^{\frac{1}{2}}h^{-1}(\underline{v}_1/3 + \underline{v})3/4,$$

$$\underline{s}h_2h_3H_1 = \underline{s}h_2H_1 = \underline{s}h_3H_1 = \underline{s}cH_1 = \underline{s}ch_2H_1 = \underline{s}ch_3H_1 = 0.$$

Pro le atomo C:

$$\underline{s}cC = -\underline{v}, \quad \underline{s}h_1C = -\underline{v}_1,$$

$$\underline{s}h_2C = -\underline{v}_2, \quad \underline{s}h_3C = -\underline{v}_3,$$

$$\underline{s}h_1h_2C = h^{-1}2^{\frac{1}{2}}(\underline{v}_1 + \underline{v}_2),$$

$$\underline{s}h_2h_3C = h^{-1}2^{\frac{1}{2}}(\underline{v}_2 + \underline{v}_3),$$

$$\underline{s}h_3h_1C = h^{-1}2^{\frac{1}{2}}(\underline{v}_3 + \underline{v}_1),$$

$$\underline{s}ch_1C = 2^{\frac{1}{2}}[(h^{-1} + c^{-1}/3)\underline{v} + (c^{-1} + h^{-1}/3)\underline{v}_1] \, 3/4,$$

$$\underline{s}ch_2C = 2^{\frac{1}{2}}[(h^{-1} + c^{-1}/3)\underline{v} + (c^{-1} + h^{-1}/3)\underline{v}_2] \, 3/4,$$

$$\underline{s}ch_3C = 2^{\frac{1}{2}}[(h^{-1} + c^{-1}/3)\underline{v} + (c^{-1} + h^{-1}/3)\underline{v}_3] \, 3/4.$$

Pro le atomo Cl:

$$\underline{s}cCl = \underline{v},$$

$$\underline{s}ch_1Cl = -2^{\frac{1}{2}}c^{-1}(\underline{v}/3 + \underline{v}_1)3/4,$$

$$\underline{s}ch_2Cl = -2^{\frac{1}{2}}c^{-1}(\underline{v}/3 + \underline{v}_2)3/4,$$

$$\underline{s}ch_3Cl = -2^{\frac{1}{2}}c^{-1}(\underline{v}/3 + \underline{v}_3)3/4,$$

$$\underline{s}h_1C_1 = \underline{s}h_2Cl = \underline{s}h_3Cl = \underline{s}h_1h_2Cl =$$

$\underline{s}h_2h_3Cl = \underline{s}h_3h_1Cl = 0.$

Pro le coordinatas de symmetria del typo a_1, le U's es trovate per uso de Eq. 4A1. Illos es:

$$U_{1c} = 1, \quad \text{alteres } U_{1k} = 0,$$

$$U_{2h_1} = U_{2h_2} = U_{2h_3} = 3^{-\frac{1}{2}}, \text{ alteres } U_{2k} = 0,$$

$$U_{3ch_1} = U_{3ch_2} = U_{3ch_3} = -6^{-\frac{1}{2}},$$

$$U_{3h_1h_2} = U_{3h_2h_3} = U_{3h_3h_1} = 6^{-\frac{1}{2}},$$

$$\text{alteres } U_{3k} = 0.$$

Pro le coordinatas de symmetria del typo e, le U's es trovate per uso de Eq. 4A2. Illos es:

$$U_{1a}h_1 = 2\,6^{-\frac{1}{2}}, \quad U_{1a}h_2 = U_{1a}h_3 = -6^{-\frac{1}{2}},$$

$$\text{alteres } U_{1a}k = 0,$$

$$U_{2a}ch_1 = 2\,6^{-\frac{1}{2}}, \quad U_{2a}ch_2 = U_{2a}ch_3 = -6^{-\frac{1}{2}},$$

$$\text{alteres } U_{2a}k = 0,$$

$$U_{3a}h_2h_3 = 2\,6^{-\frac{1}{2}}, \quad U_{3a}h_1h_2 = U_{3a}h_3h_1 = -6^{-\frac{1}{2}}, \text{ alteres } U_{3a}k = 0,$$

$$U_{1b}h_2 = 2^{-\frac{1}{2}}, \quad U_{1b}h_3 = -2^{-\frac{1}{2}},$$

$$\text{alteres } U_{1b}k = 0,$$

$$U_{2b}ch_2 = 2^{-\frac{1}{2}}, \quad U_{2b}ch_3 = -2^{-\frac{1}{2}},$$

$$\text{alteres } U_{2b}k = 0,$$

$$U_{3b}h_3h_1 = 2^{-\frac{1}{2}}, \quad U_{3b}h_1h_2 = -2^{-\frac{1}{2}},$$

$$\text{alteres } U_{3b}k = 0.$$

Le vectores $\underline{S}$ nunc es obtenite per uso de Eq. 2C2. Pro le vibrationes de typo a_1, illos es:

$$\underline{S}_1H_1 = 0, \quad \underline{S}_2H_1 = 3^{-\frac{1}{2}}\underline{y}_1,$$

$$\underline{S}_3H_1 = -3^{\frac{1}{2}}(\underline{y}_1 + 3\underline{y}_2 + 3\underline{y}_3 - 3\underline{y})h^{-1}/12,$$

$$\underline{S}_1C = -\underline{y}, \quad \underline{S}_2C = -3^{-\frac{1}{2}}(\underline{y}_1 + \underline{y}_2 + \underline{y}_3),$$

$$\underline{S}_3C = (7h^{-1}3^{\frac{1}{2}}/12 - 3^{\frac{1}{2}}c^{-1}/4)(\underline{y}_1+\underline{y}_2+\underline{y}_3) - 3^{\frac{1}{2}}(3h^{-1}+c^{-1})\underline{y}/4,$$

$$\underline{S}_1Cl = \underline{y}, \quad \underline{S}_2Cl = 0,$$

$$\underline{S}_3Cl = c^{-1}3^{\frac{1}{2}}(\underline{y} + \underline{y}_1 + \underline{y}_2 + \underline{y}_3)/4.$$

Pro le vibrationes de typo e, illos es:

$$\underline{S}_{1a}H_1 = 2\,6^{-\frac{1}{2}}\underline{y}_1,$$

$$S_{2a}H_1 = -h^{-1}3^{\frac{1}{2}}(\underline{y}_1/3 + \underline{y})/2,$$

$$\underline{S}_{3a}H_1 = h^{-1}3^{\frac{1}{2}}(2\underline{y}_1/3 + \underline{y}_2 + \underline{y}_3)/4,$$

$$\underline{S}_{1a}C = 6^{-\frac{1}{2}}(-2\underline{y}_1 + \underline{y}_2 + \underline{y}_3),$$

$$\underline{S}_{2a}C = 3^{\frac{1}{2}}(c^{-1}+h^{-1}/3)(2\underline{y}1-\underline{y}_2-\underline{y}_3)/4,$$

$$\underline{S}_{3a}C = h^{-1}3^{\frac{1}{2}}(-2\underline{y}_1 + \underline{y}_2 + \underline{y}_3)/3,$$

$$\underline{S}_{2a}Cl = c^{-1}3^{\frac{1}{2}}(-2\underline{y}_1 + \underline{y}_2 + \underline{y}_3)/4,$$

$$S_{3b}H_1 = 3h^{-1}(\underline{y}_2 - \underline{y}_3)/4,$$

$$\underline{S}_{1b}C = 2^{-\frac{1}{2}}(\underline{y}_3 - \underline{y}_2),$$

$$\underline{S}_{2b}C = 3(c^{-1} + h^{-1}/3)(\underline{y}_2 - \underline{y}_3)/4,$$

$$\underline{S}_{3b}C = h^{-1}(\underline{y}_3 - v_2),$$

$$\underline{S}_{2b}Cl = 3c^{-1}(\underline{y}_3 - \underline{y}_2)/4,$$

$$\underline{S}_{1a}Cl = \underline{S}_{3a}Cl = \underline{S}_{1b}H_1 = S_{2b}H_1 = \underline{S}_{1b}Cl = S_{3b}Cl = 0.$$

Le matrice G pro le vibrationes de typo a_1 es obtenite per uso de Eq. 2C1, como pro le molecula H_2O. Le elementos de isto es:

$$G_{11} = \mu_{Cl} + \mu_C,$$

$$G_{12} = G_{21} = -3^{\frac{1}{2}}\mu_C/3$$

$$G_{13} = G_{31} = 4h^{-1}3^{\frac{1}{2}}\mu_C/3$$

$$G_{22} = \mu_H + \mu_C/3,$$

$$G_{23} = G_{32} = -4h^{-1}\mu_C/3,$$

(continuate al pagina 70)

NOVE LIBROS

Darstellungen Von Gruppen (Representationes de Gruppos). H. BOERNER. Springer-Verlag, Reichpietschufer 20, Berlin W 35; etiam Göttingen e Heidelberg; 1955. 287 + xi paginas e 15 illustrationes. Precio, DM 33: Religate in lino DM 36,60.

LE SUBTITULO de iste libro es "Con Consideration del Necessitates del Physica Moderne". Isto explica in grande mesura le objectivo del libro.

Tractate es matrices; gruppos; theoria general de representationes; le representationes de gruppos symmetric; le representationes de gruppos completemente linear, unimodular, e unitari; le characteres de gruppos linear e permutational, e le gruppo alternative; le characteres e unic representationes del gruppo rotational; representationes de gyration, annulo infinitesimal, gruppo rotational ordinari;e le gruppo Lorentz.

Le objectivo principal del libro es le presentation del representationes e characteres de un numero de gruppos importante.

* * *

Raman Analysis of Polychloro-Compounds (Analyse Raman de Compositos Polychloric). H. G. HARING. D. B. Centen's Uitgeversmaatschappij N. V., Amsterdam,Hollanda,1955.In anglese. 123 paginas. Precio incognite.

DISCUTITE ES le spectros Raman de compositos aliphatic que contine Cl, chloroethenos e chloropropenos, chloropentenos e chloropentadienos, chloroketones e le chloridos del chloroacidos, chloroetheres e chloroalcoholes, e le condensation de chloralo con 1,2-dichloroetheno.

* * *

The Infrared Absorption Spectrum of Compressed CO_2 and CO_2-Containing Mixtures (Le Spectro Infrarubie Absorptionic de CO_2 Comprimite e de Mixturas que Contine CO_2). J. FAHRENFORT. J. B. Wolters, Groningen, Djakarta, 1955. In anglese. 88 + viii paginas, Precio incognite.

PRIMO ES DISCUTITE le regulas de selection e intensitates de transitiones in moleculas imperturbate con un centro de symmetria. Tunc es considerate le cambiamentos in le spectro infrarubie causate per perturbationes.

Isto es sequite per un capitulo in re le spectros infrarubie e Raman del moleculas CO_2 imperturbate, le qual es in torno sequite per un explication de experimentos super le absorption inducite de CO_2 e de mixturas de CO_2 con altere gases.

Capitulo IV describe le calculationes del intensitates de alicunes del bandas de absorption inducite. Le ultime capitulo da alicun observationes in re le bandas de absorption atmospheric de O_2.

Il ha 2 appendices. Le 1me da alicun remarcas in re le interaction molecular in mixturas de moleculas polar e nonpolar (HCl e H_2). Le 2nde discute le intensitate intrinsec de alicun transitiones a pression inducite.

REVISTAS

Le Vibrationes e Le Spectros Electronic Del Moleculas Polyatomic. JULES DUCHESNE. Memoires, Academie royale de Belgique 28, 1-70 (1955). In francese.

Il ha 3 capitulos. In le 1me es discutite le theoria del vibrationes de moleculas triatomic angular de symmetria C_{2v}, e le structura de moleculas continente 18, 19, e 20 electrones extranucleari.

Le 2nde da le theoria del vibrationes de moleculas tetra-atomic de symmetria C_{2v}, e le structura de moleculas continente 24 electrones externe.

Le 3tie tracta del theoria del vibrationes del moleculas C_6X_6 de symmetria D_{6h}, e del structura del moleculas C_6H_6 e C_6D_6.

* * *

Le Formas de Simple Moleculas. A. D. WALSH. Reimprimite ex le libro, Progresso in le Stereochimia, redigite per W. Klyne. Butterworth Scientific Publications, 88 Kingsway, London, W.C.2.

DATE ES LE resultatos experimental, le generalisationes empiric que pote esser facite ex istos, e le explicationes theoric del generalisationes. Le tractamento comencia con un breve indication del methodos principal usate pro determinar le formas molecular.

$$G_{33} = 2h^{-2}\mu_H + 16h^{-2}\mu_C/3.$$

Le elementos del matrice G pro le vibrationes de typo e es obtenite per uso de Eq. 1. Per exemplo, le elemento G_{23} es

$$\begin{aligned} G_{23} = \tfrac{1}{2}\big[& \mu_H(3)(\underline{s}_{2a}H_1 \cdot \underline{s}_{3a}H_1 \\ & + \underline{s}_{2b}H_1 \cdot \underline{s}_{3b}H_1) \\ & + \mu_C(1)(\underline{s}_{2a}C \cdot \underline{s}_{3a}C \\ & + \underline{s}_{2b}C \cdot \underline{s}_{3b}C) \\ & + \mu_{Cl}(1)(\underline{s}_{2a}Cl \cdot \underline{s}_{3a}Cl \\ & + \underline{s}_{2b}Cl \cdot \underline{s}_{3b}Cl)\big]. \end{aligned} \qquad (2)$$

Le productos scalar es

$$\underline{s}_{2a}H_1 \cdot \underline{s}_{3a}H_1 = h^{-2}/3,$$

$$\underline{s}_{2b}H_1 \cdot \underline{s}_{3b}H_1 = 0,$$

$$\underline{s}_{2a}C \cdot \underline{s}_{3a}C = -2h^{-1}(c^{-1} + h^{-1}/3),$$

$$\underline{s}_{2b}C \cdot \underline{s}_{3b}C = -2h^{-1}(c^{-1} + h^{-1}/3),$$

$$\underline{s}_{2a}Cl \cdot s_{3a}Cl = \underline{s}_{2b}Cl \cdot \underline{s}_{3b}Cl = 0.$$

Assi

$$G_{23} = \tfrac{1}{3}h^{-2}\mu_H - 2h^{-1}(c^{-1} + h^{-1}/3)\mu_C.$$

Le altere elementos del matrice pro le vibrationes de typo e es:

$$G_{11} = \mu_H + 4\mu_C/3,$$

$$G_{12} = -2\tfrac{1}{2}(c^{-1} + h^{-1}/3)\mu_C,$$

$$G_{13} = 4h^{-1}2\tfrac{1}{2}\mu_C/3,$$

$$G_{22} = 3c^{-2}\mu_{Cl}/2 + 3(c^{-1} + h^{-1}/3)^2\mu_C/2 + h^{-2}\mu_H,$$

$$G_{33} = 5h^{-2}\mu_H/2 + 8h^{-2}\mu_C/3,$$

$$G_{21} = G_{12},\ G_{31} = G_{13},\ G_{32} = G_{23}.$$

(Va continuar in un numero futur)

... LE CONVENTION OXFORD .....

(continuate ab pagina 66)

cimento in le impedimento steric in <u>trans</u>-stilbenes <u>ortho</u>-substituite pote esser detegite plus facilemente per le accrescimento in le largor del banda associate con le vibration extra le plano del gruppo methylenic C-H que per le cambiamentos o in le frequentias o in le intensitates de absorption integrate de iste bandas.

Sabbato E Dominica Dedicate a Activitates Non-Spectroscopic

Iste conferentia super spectroscopia molecular esseva unic in tanto que illo esseva tenite trans le fin de un septimana. Isto faceva possibile un the deliciose in le postmeridie de sabbato in le jardin del Collegio <u>St. Johns</u>, sequite per un migration in massa pro vider le "Macbeth" de Shakespeare -- in le qual Lawrence Olivier e Vivian Leigh esseva le stellas -- a Stratford-on-Avon, 50km distante.

Tunc in le matino de dominica on poteva vader al servicios divin in le belle cappellos ancian del collegios de Oxford. Al postmeridie de dominica, un viage per nave sur le riviera Thames o per omnibus a transverso del campania esseva disponibile. Nonobstante, un discussion informal e non programmate super ligatura hydrogenic, promovite per Davies (Aberystwyth, Wales), dava al activitates del postmeridie de dominica un bon competition.

Conferentia Ha Aspectos Unic

Conferentias scientific in le hemispherio del west ha lor attractiones, sed illos non pote reclamar le provision de edificios 800 annos vetere pro lor placias de assemblea, un toast al regina al banchetto, barcar sur un tributario del Thames, belle jardines al Collegios de Oxford, sessiones scientific al quales fumar es prohibite (un grande alleviamento a alicunes de nos !), deliciose intermissiones pro "caffe" in le matino a 11:00 e post "the" a 4:00

(al quales il esseva possibile compensar pro le tempore perdite in fumar!).

Le impacto final del martello presidential de Chef Thompson finiva un occasion memorabile pro le spectroscopistas molecular del mundo.

NELSON FUSON

Universitate Fisk
Nashville 8, Tennessee
Statos Unite de America

... NOVAS .....

(continuate ab pagina 65)

DR. W. C. PRICE ha essite promovite al rango de "Professor" al Kings College del Universitate London.

* * *

POSITION DESIRATE: Chimista physic con interesse in recerca in spectroscopia molecular. 10 annos de experientia como instructor de chimia. 6 publicationes. (Scribe a iste periodico, codice DUJZ.)

* * *

LE SOCIETATE INTERNATIONAL de HEMATOLOGIA ha designate Interlingua como un del linguas official de su 6te congresso in 1956. Summarios de omne discursos e documentos va apparer in le programma in Interlingua, secundo NOVAS DE INTERLINGUA. (Le adresse de iste bulletin es P.O. Box 1275, New York 17, N.Y.)

* * *

LE PRIME CURSO UNIVERSITARI de Interlingua esseva offerite per le Universitate New York durante le semestre de primavera 1955. Le curso va esser repetite durante le semestres de autumno e primavera del sequente anno academic.

* * *

"THE INTERNATIONAL LANGUAGE REVIEW", un

(continuate al pagina 72)

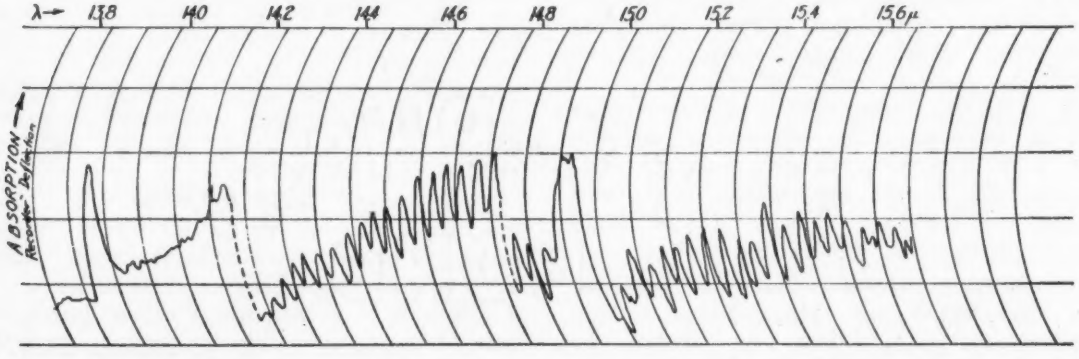
SUMMARIOS DE ARTICULOS FUTUR

Un Nota Super Le Calculation Del Nivellos De Energia In Moleculas Con Torsion Interne. JEROME D. SWALEN.

Departimento de Chimia, Universitate Harvard, Cambridge 38, Mass., S. U. A.

Submittite al J. Chem. Phys. le 29 de julio 1955.

FORMULAS APPROXIMATIVE es date pro calcular le elementos del matrice del operator del momento angular de un rotor symmetric que move con rotation restringite sur un molecula asymmetric. Istos tunc pote esser usate pro calcular le effecto del torsion super le rotation integre in le spectros rotational microundic per le methodo de Wilson, Lin, e Lide.



LE BANDA de CO_2 a 15μ obtenite con le spectrometro de grilliage recentemente describite per K. P. YATES e R. F. BUHL (Compania Pure Oil, Crystal Lake, Illinois, S.U.A.) in le J. Opt. Soc. Am. 45, 192-201 (1955). Le instrumento es evacuabile e registra automaticamente ab 1 a 20μ. Illo contine un prisma de KBr e 3 grilliages permanentemente installate. Solmente un breve tempore es requirite pro cambiar ab le registrar de spectros de prisma a spectros de grilliage.

CALENDARIO

--OCTOBRE 6-8. Symposio super spectroscopia a alte resolution. Optical Society of America. (A. C. Hardy, Secretario; Instituto Technologic de Massachusetts, Cambridge 39, Mass., S.U.A.)

--JANUARIO O FEBRUARIO. Symposio spectroscopic al Laboratorio National Argonne, proxime a Chicago. (Vide Spec. Mol. 4, 65 (1955); F. S. Tomkins o M. Fred, Argonne National Laboratory, Box 299, Lemont, Illinois, S. U. A.)

--MAIO 14-19. 6te colloquio international de spectroscopia, Amsterdam, Hollanda. Emissionic: photometria de flammas, influentia del atmosphera gasose super le arco de carbon a currente continue, excitation per scintillas, instrumentation. Absorptionic: spectroscopia Raman e infrarubie, visibile, ultraviolette, e fluorescentic. (F. Freese, Lab. de Chimia Analytic, Nieuwe Achtergracht 123, Amsterdam-C.)

--JUNIO 11-15. 11me symposio annual super spectroscopia e structura molecular, Universitate Ohio State. (H. H. Nielsen, Departimento de Physica, Universitate Ohio State, Columbus 10, Ohio Statos Unite.)

--JUNIO 11-15. 4te assemblea del Commission Juncte de Spectroscopia del Consilio International de Uniones Scientific, Columbus (tentative). (Secretariato del Commission Juncte de Spectroscopia, Laboratorio Zeeman, Muidergracht 4, Amsterdam-C, Hollanda.)

--JULIO 12-14. 7me symposio international de astrophysica. Moleculas in objectos astronomic. Liége, Belgica. (H. C. Urey, Chef del symposio, Instituto de Studias Nucleari, Universitate Chicago, Chicago 37, Illinois, S. U.)

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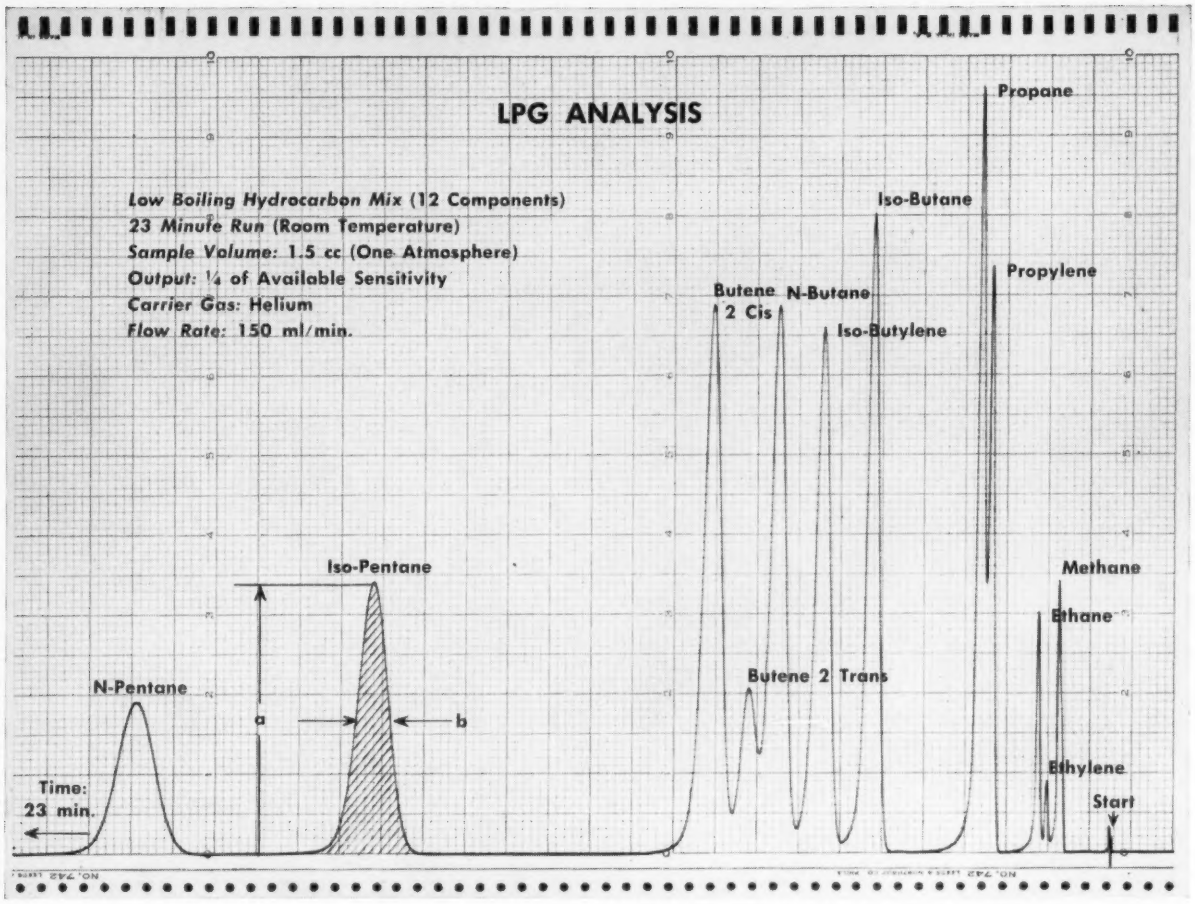

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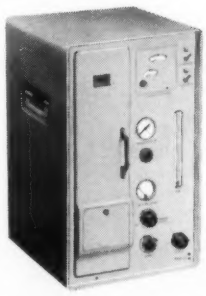

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